

## ABSTRACT OF THE DISCLOSURE

Worm gear mechanism is provided which includes a worm, a torque-transmitting worm wheel and an auxiliary worm wheel. In order to  
5 secure a sufficient face width of the torque-transmitting worm wheel, a pitch diameter of the auxiliary worm wheel is set to be greater than a pitch diameter of the torque-transmitting worm wheel. Thus, undesired backlash can be eliminated by the auxiliary worm wheel meshing with the worm with a different meshing phase from the torque-transmitting worm wheel.

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